4. (Four times amended) A rocket engine as claimed in claim 14, wherein the injection orifices comprise at least two, which are symmetrically positioned around the circumference of said divergent nozzle body.

5. (Three Times Amended) A rocket engine as claimed in claim 3, wherein the injection orifices comprise 3 in number and are arranged at substantially 120° to one another over the perimeter of the nozzle body.

6. (Three Times Amended) A rocket engine as claimed in claim 2, wherein said injection cross section is arranged at distance D from the throat which is substantially less than a distance D_0 of a location of spontaneous separation of the flow at sea level.

7. (Four times amended) A rocket engine as claimed in claim 6, said means for simultaneously injecting comprising:

a plurality of injectors situated at different distances from the throat for simultaneously injecting said fluid; and

a distributing device for selectively feeding said injectors at different cross sectional locations to take into account the variation of said distance of spontaneous separation of the flow as a function of altitude.

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14. A rocket engine comprising:

a combustion chamber;

a throat; and

a divergent nozzle body downstream of said throat, said nozzle body having an axis and a control system for controlling jet separation of a flow in the nozzle body, said thrust being parallel with the axis of the nozzle body,

wherein said control system comprises,

a plurality of mutually spaced separation triggering elements positioned on an injection cross section of the divergent nozzle body perpendicular to the axis of the nozzle body, and

a means for simultaneously injecting fluid through the mutually spaced separation triggering elements of said injection cross section of the divergent nozzle body, forming a three-dimensional separation of said flow, and for generating distinct zones of jet separation corresponding to the spaced separation triggering elements from a respective plurality of mutually spaced initiation points positioned in the divergent nozzle body, wherein said separation triggering elements are spaced so that said injection occurs through the separation triggering elements.

15. (Once amended) The rocket engine as claimed in claim 14, wherein the nozzle body is conical.

Please add the following new claims:

--16. (New) The rocket engine of claim 14, wherein said a plurality of mutually spaced separation triggering elements comprises two mutually spaced separation triggering elements.--

--17. (New) The rocket engine of claim 14, wherein said a plurality of mutually spaced separation triggering elements comprises three mutually spaced separation triggering elements.--

E3 --18. (New) The rocket engine of claim 14, wherein said a plurality of mutually spaced separation triggering elements comprises at least three mutually spaced separation triggering elements.--